ABSTRACT

An S/P converting section (101) converts input transmission signals A1, A2, B1, B2, ···, K1, K2 to parallelized data, separated in individual transmission lines. Spreading sections (102, 103) spread the respective data under control of a spread control section (107). Adding sections (104-1, 104-2) multiplex spread data. Transmitting sections (105-1, 105-2) provide radio transmission processing to the multiplexed signals, and transmit the data via antennas (106-1, 106-2) by radio. The spread control section (107) controls the spreading methods in the spreading sections (102, 103) based on channel quality. This makes it possible to improve error rate characteristics of the received signal and as maintain spectrum efficiency when varying data is transmitted from multiple antennas.